Notebook Series -- Notebooks by Edison and Other Experimenters
Disc Record Book No. 16
Notebook, N-16-06-14

This notebook was used by Edison during June-July 1916 for notes on experiments to improve the surface quality and the durability of disc records. There are also notes by Archie D. Hoffman and other experimenters, probably including Sherwood T. (Sam) Moore. The entries pertain primarily to experiments 1189E through1238E. Included are tests involving different presses and varnish compounds, variations in the methods of applying the varnish, and differing amounts of pressure and baking schedules. Also included are tests with a new "square edge" or "square ring" mold. Additional entries relate to diamond reproducer points and the amount of labor required in varnishing. At the end of the book are notes on the number of "girls" employed in the manufacture of records, as well as notes about piece work rates, inspection standards, the number of records produced, and the results of "drop tests." Some notes are in the form of instructions to Hoffman. Inserted into the book is one loose note by Edison regarding the reexamination of experiment 1143 in November 1916. The front and back covers are labeled "16." The pages are unnumbered. Approximately 140 pages have been used.

Schedule Blank process

5 mm Contact
3. " 600 C.G.
8 " Cool
16

16) 600 (37
48.0
122
112
37

21

S6769
Acme Co.,
MFG. STATIONERS,
96 JOHN ST.
AND
19 PLATT ST.
NEW YORK.

20) 600 (30

Started
June 14 1916

12	100%
11	91
10	83
9	75
8	66
7	58
6	50
5	41
4	33
3	25
2	16
1	8

21
12
42
210
35

OK
OK

OK
EQ

1 cked

OK
EQ

1 Cracked blank

OK
EQ

OK
OK

X

OK
OK

X

OK
OK

1 Pinch

OK
OK

X

1

OK
OK

75

25%

1189E

One round - blank plungers
both move

Print Req

1190 E

OK	X
OK	X
OK	X
OK	X
OK	X
OK	X
OK	X
OK	X
OK (Blanks 1 to 6 ok)	✓
OK	X
OK	X
OK	X

100%

91% perfect,

1190 E

Lot 228, Norway pulp,

One round of latest made blanks - not edged, Varnished on both sides & Edge all over, Print in the new Mould holders using square edge blanks

Load 3,

Print Req

Load 3

1 Crushed Edge Good
1 Crushed Edge
1 Crushed Edge
1 Crushed Edge
1 Crushed Edge
1 Crushed Edge
1 Crushed Edge
OR etc
OR etc
1 Crushed Edge
1 Cracked flank
OR etc

1191 E

One round of blanks ~~[illegible]~~ made in single press

Print Reg.

Pull out feed line,

P.O.

OK OK Low 3

OK OK

OK OK Low 3

OK

OK OK

OK OK

OK OK Low 3

OK OK Crushed Low 3

OK OK Low 3

OK OK

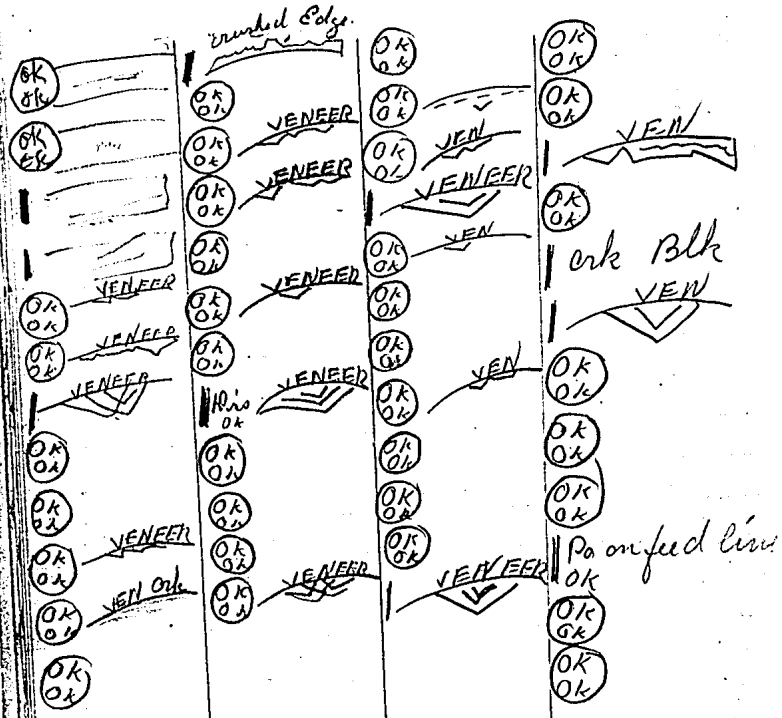
75 -
none perfect

1192 E

One round blanks made
+ also punched in
single pieces

Note the low

1193 E



75%	83%	83%	66%
25%	50%	50%	66%

1193 E

4 Rounds

Req schedul but put on final pressure of 850 lbs slowly Take One minute to 1½ to go to 850 lbs.

Test to see if slow putting on will stop lead Edges

New Square ring Mould.

OK OK	X	OK OK	
OK OK	X		
OK OK	X	OK OK	X
OK OK	X	OK OK	
OK OK	X		
OK OK		OK OK	X
OK OK		OK OK	
OK OK	X	OK OK	X
OK OK	Edge veneer	OK OK	
OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
100%		91%	
76.9 perfect.		58%	

Night New Square blank + mould

OK OK X	OK OK X
OK OK V	OK OK X
OK OK	OK OK X
OK OK	OK OK X
OK OK V Edge Edge Bad blank	OK OK X
OK OK X	OK OK X
OK OK X	OK OK X
OK OK V	OK OK X
OK OK	OK OK X
OK OK ck ck	OK OK X
OK OK X	OK OK X
OK OK X	OK OK X
OK OK X	OK OK X

100%
50%

100%
100% perfect

Night New Moulds

OK OK		X	
OK OK		X	
OK OK	loco	1 z + 3	
OK OK		X	
OK OK		X	
OK OK		X	
OK OK			
OK OK	Edge Bad Edge & Crack		
OK OK	Edge		
OK OK			

83% 41%

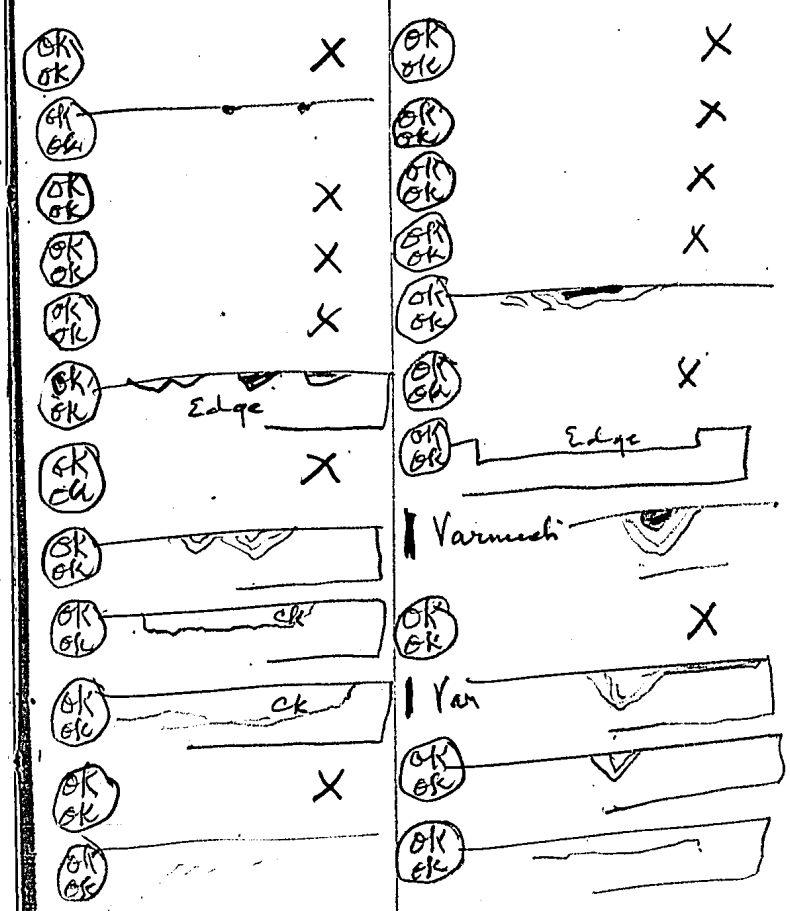
	Both Sides
OK OK	
OK OK	X
OK OK	
OK OK	Edge
OK OK	X
OK OK	X
OK OK	X
OK OK	X
OK OK	X
OK OK	X
OK OK	X
OK OK	X

91%
66% perfect

Night - New Mouled

OK OK	V	OK OK	
OK OK	Edge, V	OK OK	X
OK OK	X	OK OK	X
OK OK		OK OK	X
OK OK		OK OK	Edge
OK OK		OK OK	X
		OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
91%		100%	
58%		83%	

Daywork New Moulds



100%
50%

83%
50%

Reg run of blanks beveled Edges
printed Reg 11 Records
Sweepings
79.2 OK 54.7 % Perfect,

Reg Powder new Carload
Chalk low lima
95.1 OK 64.5 % perfect

Day New Moulds —

		This round has no lead Gasket	
OK	X	OK	X
OK		OK	X
OK	X	OK	X
OK		OK	X
OK		OK	X
OK	X	OK	X
		OK	X
OK		OK	X
OK		OK	X
OK		OK	X
OK		OK	X
OK	X	OK	X
OK	X		
		100%	
83 — 41%		100% perfect.	

New Moulds
Without Lead Gasket

OK	X
OK	
OK	X
OK	X
OK	X
OK	X
OK	X
OK	X
OK	X
OK	X
OK	X
OK	X

OK	X
OK	X
OK	
OK	X
OK	
OK	X
OK	X
OK	X
OK	Soft spot in blank
OK	X
OK	(b) (Ck) from hole
OK	X

91% OK
91% perfect.

83%
66%

New Mouldo
without Lead Gasket,

OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	CK
OK OK	X	OK OK	X
OK OK	X	Beeswax offed line;	
OK OK	X	OK OK	X
OK OK	X		
OK OK	X		
OK OK	X		
OK OK	X		
CKd Soft Spot at Edge			
OK OK	X		

6.

91% OK
91% perfect.

New moulds — Small press no rubber preserving or use of turn table —

1185 not Gevelled - Varnished on edges

Veneer pulled off.

		Rag blanks — Lead in —
OK OK		X
OK OK		Edge
		OK OK
OK OK		X
OK OK	Edge	X
OK OK		X
OK OK		X
OK OK		X
OK OK		X
OK OK		X
OK OK		Edge
OK OK		

Above have lead gasket.

These without lead gaskets.	
OK OK	X
OK OK	X
OK OK	X

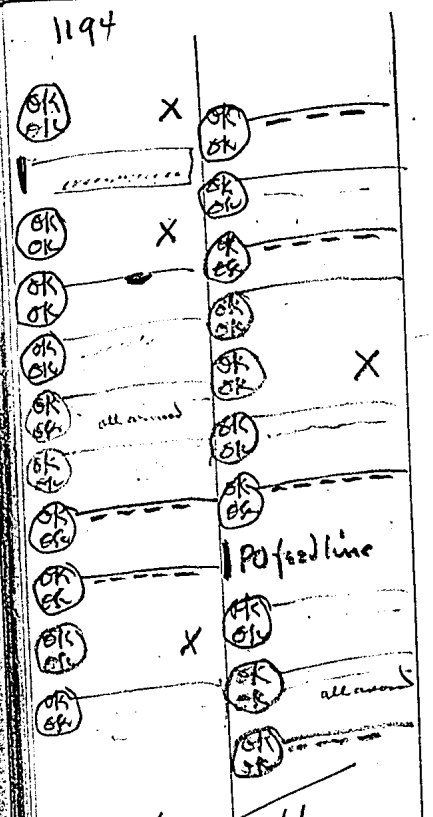
83

25%

100%

57%

1194



91%

25%

90%

8%

1194 E

4 Rounds with regular mould, but with the $1\frac{1}{2}$" of Asbestos sheets in press

Right Wrb	Square Board #	Ring Reg 3	Mould Right Wrb
Ok Ok	X	Ok Ok	Edge
Ok Ok	X	Ok Ok	X
Ok Ok	X	Ok Ok	X
Ok Ok	X	Ok Ok	VENEER Crb
Ok Ok	X	Ok Ok	X
Dis Ok	VENEER	Ok Ok	VENEER
Ok Ok	Edge	Ok Ok	X
Ok Ok	VENEER	Ok Ok	X
Ok Ok	X	Ok Ok	X
Ok Ok	X	Dis Ok	VENEER
Ok Ok	X	Ok Ok	Crb VENEER
Ok Ok	X	Ok Ok	VENEER
	91 %		91 %
	75 %.		50 %

New Moulds
without Lead Gasket

OK X

OK X

OK CK

OK Edge

OK X

OK

OK X

Crushed Edge

Crushed square $\frac{1}{8}$

Soft blank

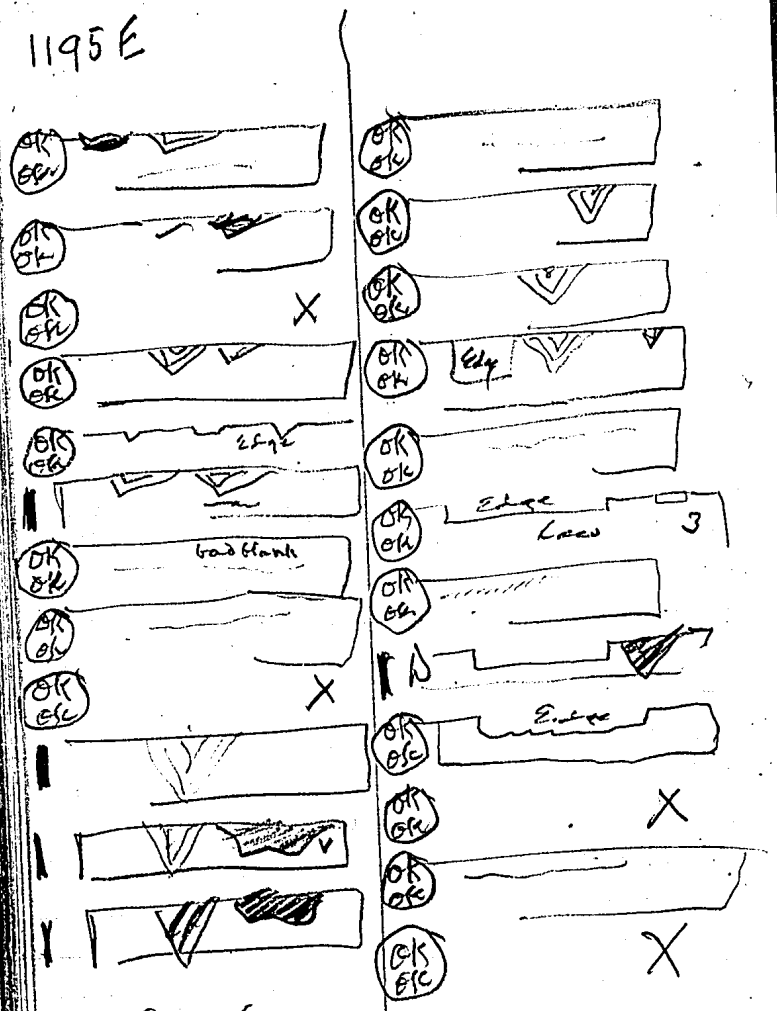
OK

OK X

75%

41%

1195E



1195E 7

Print two rounds load No 3 with square edge moulds Change Schedule from 850 lbs to 700 lbs — for 12 minutes

This shows its just as bad with 700 as 850 — it also shows when get cause of breaks 700 pressure will be enough as only 1 low spot in all these —

June 18/1916

Took a reg diamond faster reproducer so it couldnt move Then let it run on smooth part so long at it didnt cut there - latest to 160 Rev up to several hundred -

Ran it 100 hours

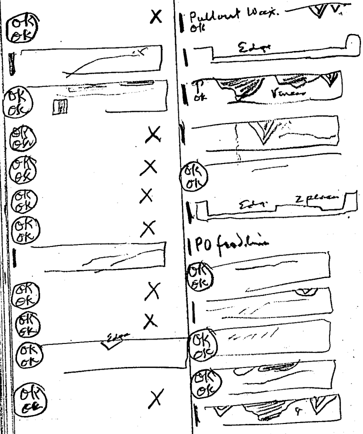
480 000 Rev it showed

a round wear spot probably more polished than other part of area —

The tried it on reg loud record after 400 times it showed no wear at all & is superior to fresh diamonds probably because it has more bearing surface -

This shows Diamond will in Customers hands last for years

1196E Good Edges	1196 Bad Edges



83 %	33%
66 %	none

1196 — New Square Edge Mould
3 with no gasket

One round with sharp good Edge. & One round with bad Edges —

Specially selected —

6-19/16

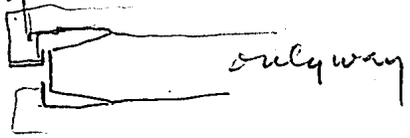
Only 2 things are left that can cause Crush of Edges + the other troubles.

"Soft places around Edge"

"Want of Universal joint,"

later

Neither do it, Edge is line of least resistance + it squashes



1197 E
1 pr

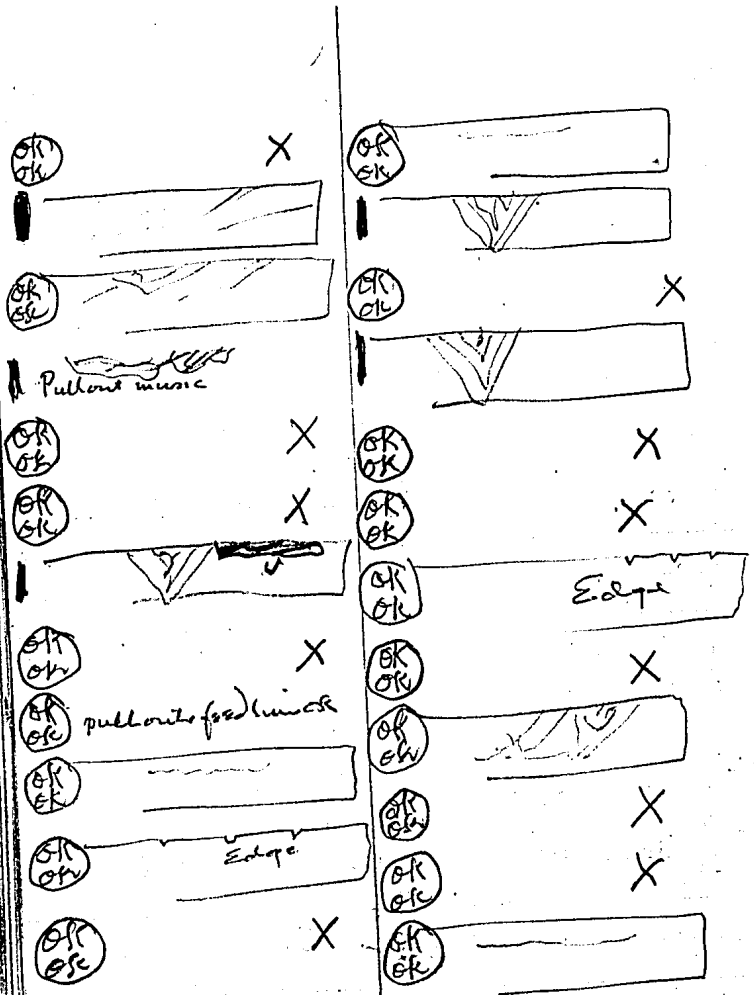
OK OK	OK OK	OK OK	OK OK
OK OK	OK OK	OK OK	OK OK
OK OK X	OK OK	OK OK X	OK OK X
OK OK	OK OK	OK OK X	OK OK
OK OK	OK OK Loose 3	OK OK	OK OK
OK OK	OK OK	OK OK	OK OK
OK OK	OK OK	OK OK	OK OK
OK OK	OK OK	OK OK X	OK OK
OK OK X	OK OK X	OK OK	OK OK X
OK OK	OK OK	OK OK	OK OK X
OK OK	OK OK	OK OK	OK OK X
OK OK X	OK OK	OK OK	OK OK
100%	100%	100%	100%
25%	8%	25%	33%

1197 E

Reg Moulds – Lead gaskets
4 Rounds of Tailings
treated with $\frac{1}{4}$ of Lac
additional –

Note – Pull outs along Edges
This is special to this mix
with Lead gaskets

Note also same blanks
in square Edge no gasket
moulds 1208 E
OK & good no pos on
Edges



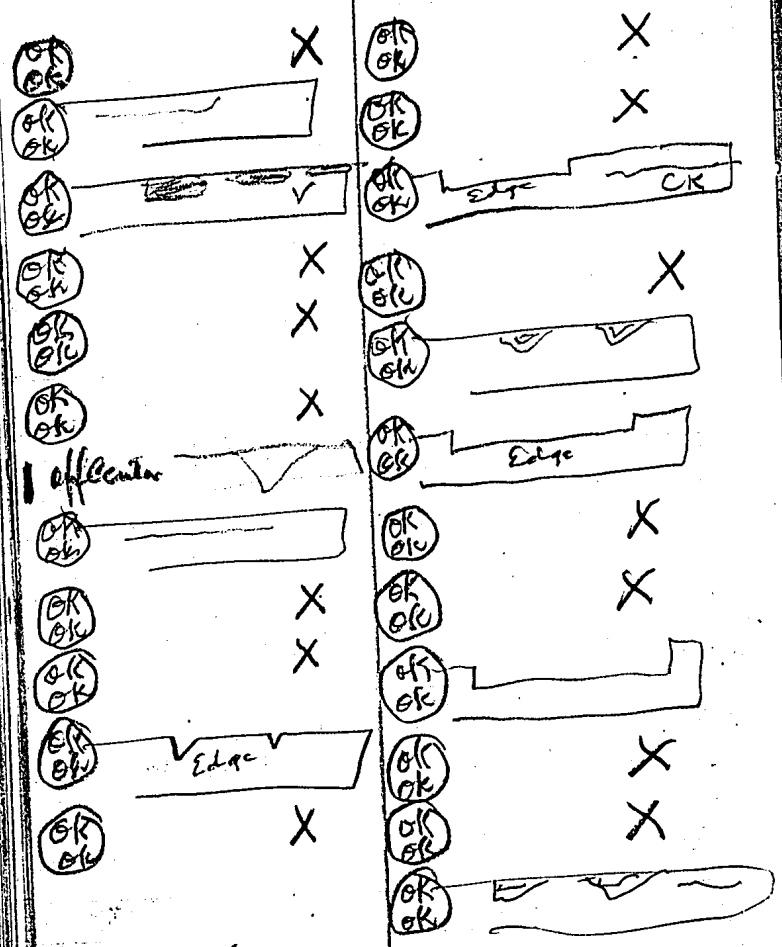
1198 F No Lead gaskets used

2 Rounds blanks made with Extra rubber round the Edges of big rubber - Use Extra ring to prevent big rubber flowing

Use these blanks in Square Edge moulds

No Lead gaskets

1199E



91%
58%

100%
58%

1199E #3 Load

Sgt Edge Wheels,
3 without Quakes

2 Rounds, #3 load

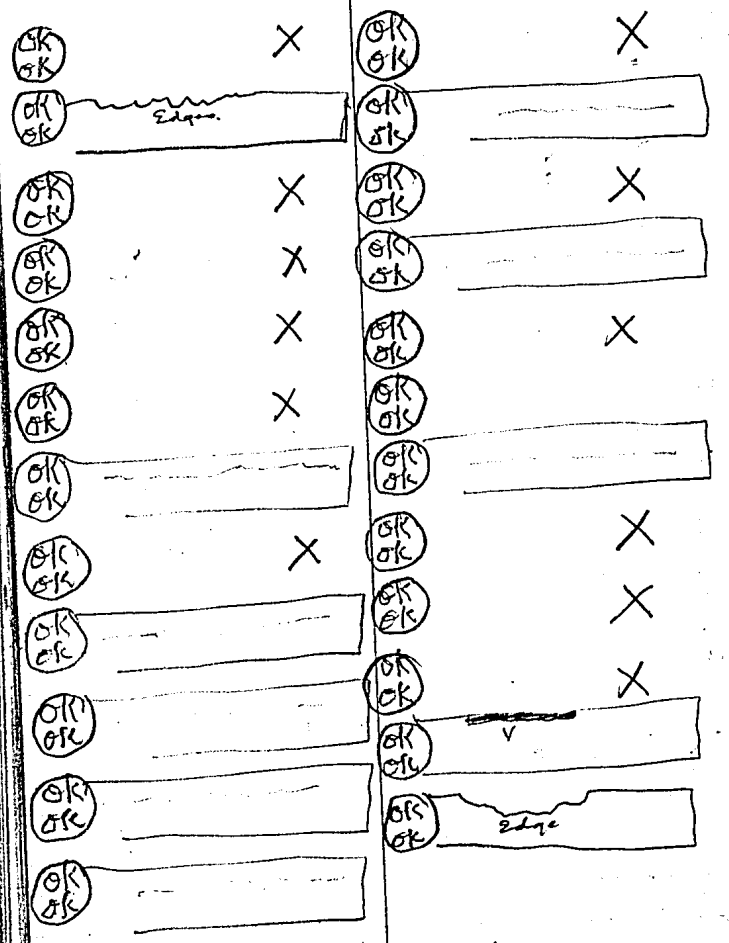
Schedule,

Bring to contact needle off pin when the lamp gets to 200 Fahr dont let it go above 200 for 2 minutes Then put on 850 lbs for 12 min

Doubtful improvement

Load 1 = New Mouldo no gaokato
Varnished on Edge Req 1522 B blay
Lot 228 | new wood -

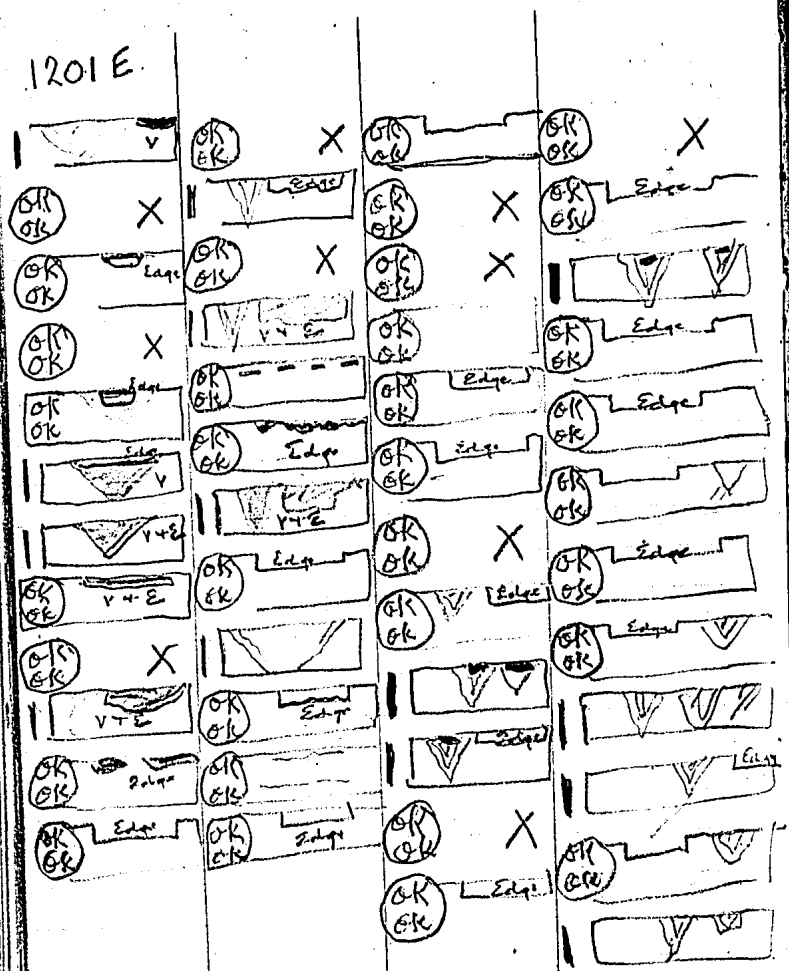
OK OK X	OK OK X
OK OK	OK OK X
OK OK	OK OK
OK OK	OK OK X
OK OK	OK OK X
OK OK X	OK OK X
OK OK	OK OK X
OK OK X	OK OK
OK OK X	OK OK X
OK OK X	OK OK
OK OK	OK OK X
OK OK X	OK OK X
11	OK OK
100%	100%
54%	75%



1200 E

Print two rounds of Edged (smalled) blank worth #1 Load of Square Edge moulds

1201 E



58%	66%	83	66%
25%	16%	33%	8%

1201 E

See 1211 same blanks in New Sgr Edge no gasket moulds

Hoffman —

Make some powder without any Para in it just Shellac

Make 8 Rounds of blanks —

Send 4 Rounds up Stacis print acquiesce in Reg Moulds

Apparently not so good as with Para

Not Certain — no improvement in any Event

1202 E

OK OK

PO at feed

OK OK ×

OK OK

OK OK ×

OK OK

OK OK both sides

OK OK

OK OK ×

Oil at feed line –

OK OK ×

OK OK

83%

33%

OK OK

OK OK

OK OK

OK OK

OK OK

OK OK

Oil at feed line

OK OK

OK OK Low 3

OK OK

OK OK

OK OK

OK OK

91%

none

1202 E

2 Rounds w/ #1 Load

Square Edges –

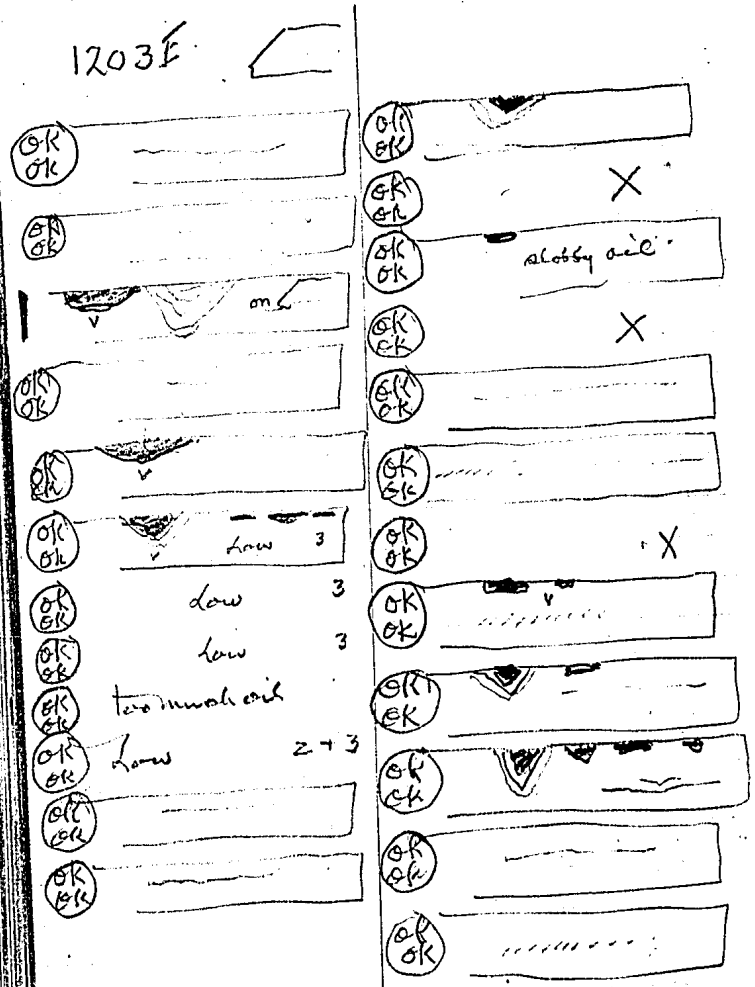
Varnish Edges –

Blanks made with

700 lbs Rubber

Pressure

1203E



91%

none

Veneers PO all on large Diameter face

100%

25%

Veneer PO all on large die

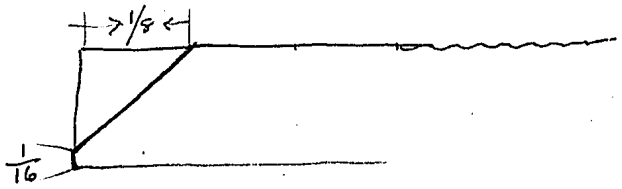
1203E

Use # 1 set moulds

2 Rounds of blanks.

700 lbs rubber pressure with Extra ring —

Bevelled off $\frac{1}{8}$ of inch



Use only those whose edges comes through edging OK.

Not good = Too many pull out of Veneer on large side —

1204

OK OK — short

OK OK — Bad Lace 3 — Excellent

OK OK — Low 3

OK OK — X

Bad Lace 3

Bad fill — 3

" 3

OK OK — Low 3

OK OK

OK OK

OK OK

OK OK

OK OK

OK OK

OK OK

OK OK

OK OK

OK OK

OK OK

OK OK

OK OK

OK OK

OK OK

no fill and Edge Laced 3

OK OK

OK OK

58%

8%

95

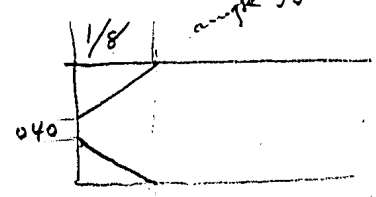
1204E

Use # 1 set moulds —

Print 2 Rounds,

Use blanks made with 700 Lbs rubber pressure and extra ring

The edges to be bevelled both Edges



Use regular Schedule

NOTE = Cannot fill if Edges are free to swell = to fill, Expansion must be restrained to permit fill —

also Cracks are too close to music less than 1/8 in many Cases

More restraint to Expansion better fill & closer to edge are Longitudinal Cracks —

Callipers of our records 50 turned out June 20 1916 —

Average 209/1000

High 223.5/1000

low 199/1000

200 is our old limit

This is with 600 lbs rubber pressure no extra ring —

With 700 lbs which we start using today with extra ring thick they will be a little thicker,

OK OK	
OK OK	
OK OK	X
OK OK	X
OK OK	X
OK OK	X
OK OK	X
OK OK	X
OK OK	X
OK OK	X
OK OK	X
OK OK	
OK OK	X

100%

75%

OK OK	X
OK OK	
OK OK	X
OK OK	X
OK OK	X
OK OK	X
OK OK	
OK OK	X
OK OK	X
OK OK	X
OK OK	

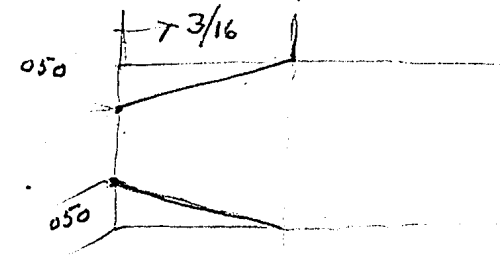
91%

66%

1205 E

new wood

2 Rounds in #1 moulds



Blanks 700 lbs pressure on rubber -

Runt Reg

600 lbs RP	700 lbs Rubber pressure		
OK OK X	OK OK	OK OK V	V
OK OK X	OK OK Edge	OK OK Edge	OK OK V
OK OK X	OK OK Low 3	OK OK	OK OK X
OK OK X	OK OK X	OK OK X	Feed line bad
OK OK X	OK OK	OK OK X	OK OK Low 3
OK OK X	OK OK Edge	V	V
OK OK X	OK OK X	OK OK	OK OK
OK OK	OK OK V-Edge	OK OK Low 3	OK OK Edge
OK OK X	OK OK V-m	OK OK Edge Low 3	OK OK V
OK OK X	OK OK V		
OK OK	OK OK V	OK OK Low 243	OK OK
OK OK	OK OK V	OK OK	OK OK Edge
OK OK V	OK OK	OK OK Low 3	OK OK
100%	100%	91%	75%
69%	8%	16%	8%

700 lbs Rubber pressure

New Mould's Square rings

Blanks Vers on Edge

Continued from 10 page back

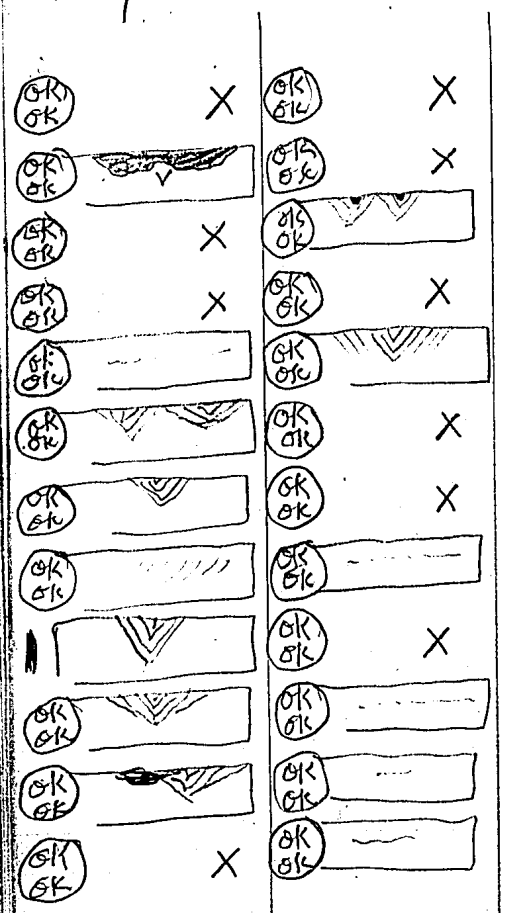
New wood

1206 E

Hurd let me come
of the Diamonds.
from Numbering
& Washing

Saw them Numbering Washer
Chips out the most,
Bad Matching next,
Hurd is looking after it

1207



91%

33% perfect

100%

50%

1207 E

2 Records

Blanks made larger in special powder mould - To be printed in #1 load of square edged moulds - Blanks to be edge 005 smaller than the inside diameter of Mould ring Varnished on Edges.

Blanks made with Extra ring + 400 lbs hot Ex pressure

OK OK	X	OK OK	X
[redacted]		OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	
OK OK	X	OK OK Low 3	
OK OK	X	OK OK Low 3	
OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK Low 3		OK OK	
OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
91%		100%	
83%		66%	

1208E

Present in #1 Square Edge Mould
2 Rounds of Blanks from
Retreated Tailings ¼ more
lace.
Present Req

Drop test on blotting pad
on floor
4 ft

1 — 1 Drop Broke —
2 — 2
3 — 20
4 — 5
5 — 3
6 — 20

wants — about 3/10 to 35/100 lac
instead of .25

1209-E

Ok Ok	X		
Ok Ok	X		
		Ok Ok	X
Ok Ok		Ok Ok	X
Ok. Blk.		Ok Ok	X
Ok Ok	X	Ok Ok	X
Ok Ok		Ok Ok	X
		Ok Ok	X
Ok Ok	X	Ok Ok	X
Ok Ok	X	Ok Ok	X
Ok Ok		Ok Ok	
Ok Ok		Ok Ok	X
Ok Ok	X		
83% 50% Perfect		83% 75%.	

1209E

Hoffman—

Can you rechuch & screw discard records, using 1/4 more shellac so we can make a test & get some fines as required if so let me know,

Thos. E. Brown Wm. Bu[illegible]

3/16
050
050

Finished end: Print in Regular Moulds

1210E

OK OK	X	OK OK	X	OK OK	X
OK OK	X	OK OK		OK OK	X
OK OK	X	OK OK	X	OK OK	X
OK OK	X	OK OK	X	OK OK	X
OK OK	X	OK OK	X	OK OK	X
OK OK	X	OK OK	X	OK OK	X
OK OK	X	OK OK	X	OK OK	X
OK OK	X	OK OK	X	OK OK	X
OK OK	X	OK OK	X	OK OK	X
OK OK	X	OK OK	X	OK OK	X
OK OK	X	OK OK	X	OK OK	X
OK OK	X	OK OK	X	OK OK	X
				OK OK	X
100%		100%		100%	
100% perfect.		91% perfect.		100% perfect	

1210E

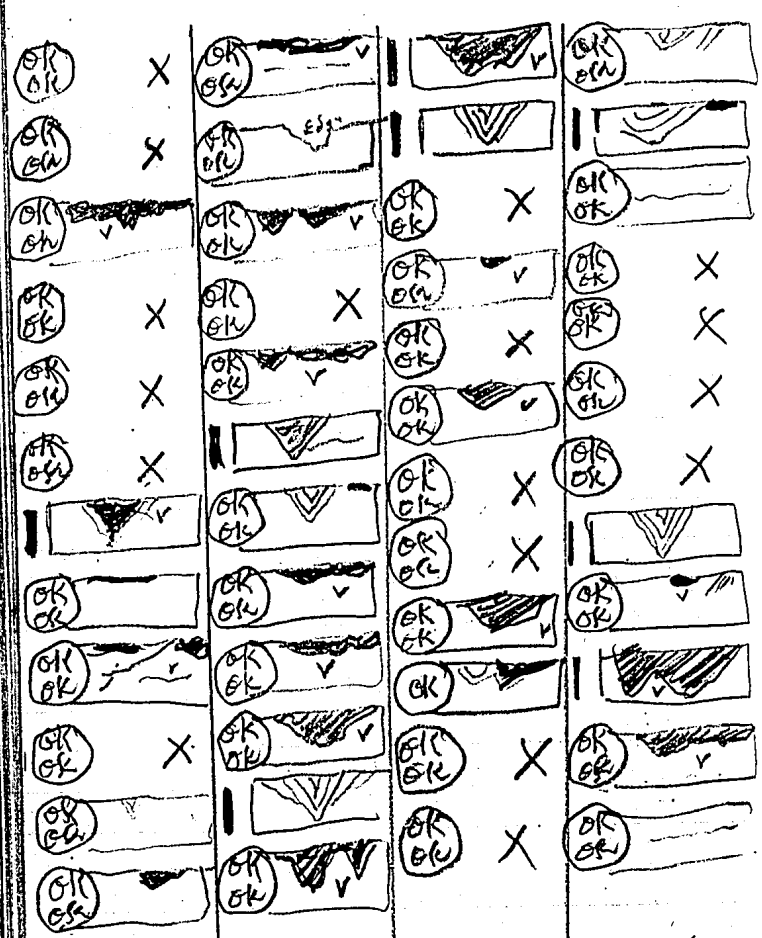
2 Rounds of 1205 Bevelled Blanks — Varnish all over —

Print in #1 Load mould

OK OK	X	OK OK	X	OK OK	X
OK OK		OK OK	X	OK OK	X
OK OK		OK OK	X	OK OK	X
OK OK	X	OK OK	X	OK OK	X
OK OK	X	OK OK		OK OK	X
OK OK		OK OK	X	OK OK	X
OK OK	X	OK OK	X	OK OK	X
OK OK	X	OK OK	X	OK OK	
OK OK		OK OK	X	OK OK	X
OK OK	X	OK OK	X	OK OK	
OK OK	X	OK OK	X	OK OK	ok
OK OK	X	OK OK	X	OK OK	
100%		100%		100%	
66% perfect		91% perfect		66% perfect	

Continued further along

1211



91%	83%	83%	75%
50%	8%	54%	43.

1211 E

2 Rounds of blanks used in 1201 E Varnished on Edge Hoffman made Extra ones + has them

New mould
83% OK 37.7 perfect
old Mould
68.2% OK 20.5 perfect

Apparently shows occasionally of new Sqm Edge no gasket moulds
Mix not good –

The reason I raise the Shellac is that it probably varies + sometimes gets too dry (10) mix + core have cracks.
1/10th Extra should take care of this variation

1212 E

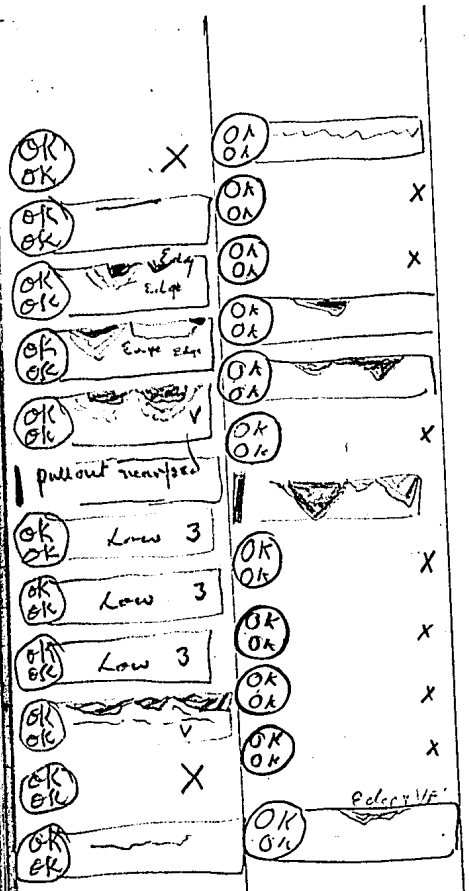
Hoffman

After today June 22 1916 Use One + one tenth of Shellac in regular mix until further notice –

Edwards

Aug 1 = 1 1/10 is too rich + requires too much for beveled Edge Moulds but OK for square Edge – We now abandon 1 1/10 + use 1 Case

[95]



91 %. 91 %

16 %. 58 %

1213

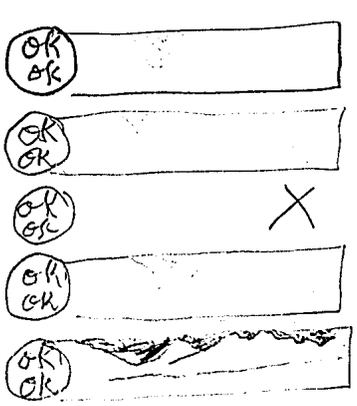
Print on #1 Load moved

2 Rounds of 1173 E

Blanks —

Square Edge — Vacuumsealed

on Edge —



1214E

One blank about $1\frac{1}{2}$%
Cotton seed flock –
Reg powder used –

Point in square ring
moved, blank unmoved on
Edge

Surfaces OK —

OK OK X	OK OK V
OK OK X	OK OK X
OK OK Edge	OK OK X
OK OK X	OK OK V
OK OK X	OK OK X
OK OK V	OK OK Edge
Accident —	OK OK Edge
OK OK Edge	OK OK X
OK OK X	OK OK X
OK OK X	OK OK X
OK OK Edge	OK OK Edge
OK OK X	OK OK X
91%	100%
58%	58%

1215 E

Two Special Mould holders the rings 3/32 less inside diameter than Reg new rings Moore to Calliper up & have them OK Then to make 4 rounds of regular blanks Edged down 005 smaller than rings & printed in These 2 moulds & sent to music room as fast as Lots of 6 are printed

1216-E

75%	91%	100%	75%
16% Reject	25%.	25%	16%

1216E

Hoffman

Make up a bunch of powder but put twice the amount of Para you generally use in 1522 B

Make up 150 blanks —

4 Rounds to be printed in #1 load of moulds save the balance of blanks —

OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK		OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
100%		100%	
91% perfect.		100% perfect.	

1217E

Print 2 Rounds of 1205 Blanks in Reg Moulds with ~~[illegible]~~ gaskets.

NOTE

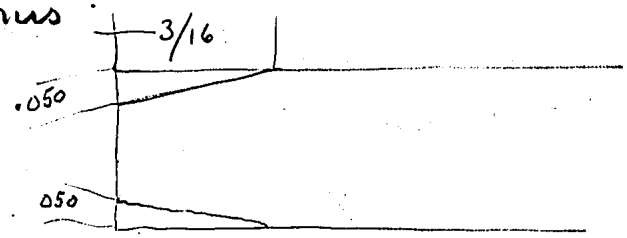
JUNE 23.

today & hereafter
1522 Blanks will
have $1\frac{1}{10}$ Shellac in
& Be Marked
1522 C

1218 E See further on

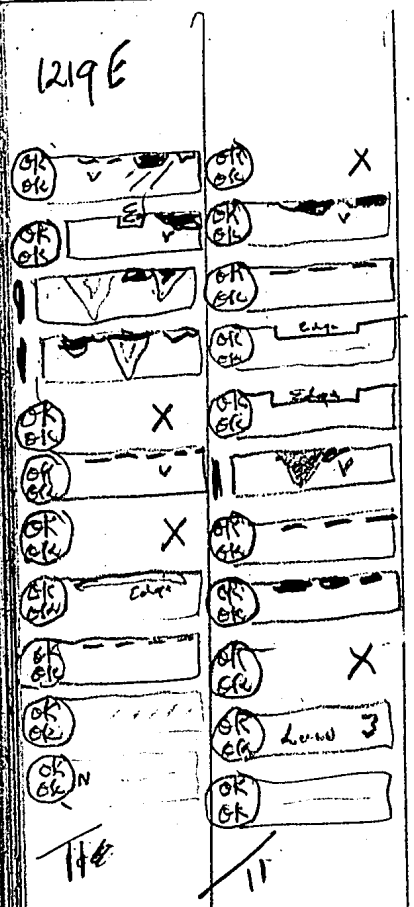
Lubr

Grind out a powder
Top & bottom
blank moulds to form a blank
thus



Hoffman make 2 rounds of
blanks to be varnished on edges
& printed in #1 load of Moulds
Continue making blanks until
notified to stop

1219E



1219E

Reg 1522C Blanks punched in Reg lead gasket mounted with BALL JOINT PRESS

Ball dont save Edges

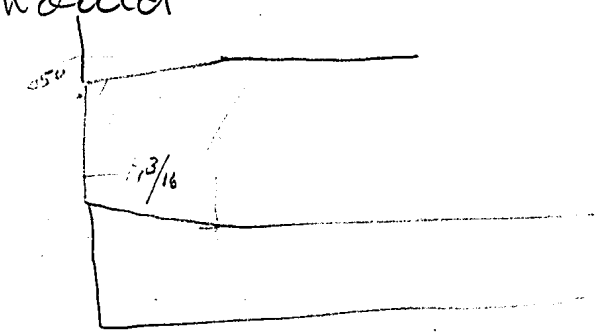
1218E

				June 26		June 26	
OK OK	X	OK OK	X	OK OK	X	OK OK	X
OK OK	X	OK OK	X	OK OK		OK OK	X
OK OK	X	OK OK	X	OK OK	X	OK OK	X
OK OK	X	OK OK	X	OK OK	X	OK OK	X
OK OK	X	OK OK	X	OK OK	X	OK OK	
OK OK	X	OK OK	X	OK OK	X	OK OK	
OK OK	X	OK OK	X	OK OK	X	OK OK	X
OK OK	X	OK OK	X	OK OK	X	OK OK	
OK OK	X	OK OK	X	OK OK	X	OK OK	X
OK OK	X	OK OK	X	OK OK	X	OK OK	X
OK OK	X	OK OK	X	OK OK	X	OK OK	
OK OK	X	OK OK	X	OK OK	X	OK OK	
OK OK	X	OK OK	X	OK OK	X	OK OK	X
OK OK	X	OK OK	X	OK OK	X	OK OK	X
OK OK	X	OK OK	X				
		OK OK	X				
100%		OK OK	X				
100%		100%		100%		100%	
		100% perfect		91% Perfect		75% Perfect	

Continued on next page

1218E

Special Powder Blank Mould



The trouble with this is surface is fine on about a louder on and pressure greatest on edge hence less at label = mottled on smooth inside & flat as on edge – Not sure of this

Calliper 240 235 251 / 1000

Wgh Weight Req 446 This 510 gr

~~Should be rolling mould~~

~~but cut down~~ – this is

~~doubtful~~

This must be cut down

1218E Continued

Ok Ok	X
Ok Ok	
Ok Ok	X
Ok Ok	X
Ok Ok	
Ok Ok	
Ok Ok	
Ok Ok	
Ok Ok	X
Ok Ok	X
Ok Ok	X

91

50 % perfect.

Continued from back pages

1210 E

OK	X	OK	X	OK	X
OK	X	OK	X	OK	X
OK	X	OK	X	OK	X
OK	X	OK	X	OK	X
OK	X	OK	X	OK	X
OK	X	OK	X	OK	X
OK	X	OK	X	OK	X
OK	X	OK	X	OK	X
OK	X	OK	X	OK	X
OK	X	OK	X	OK	X
OK	X	OK	X	OK	X
OK	X	OK	X	OK	X
OK		OK	X	OK	X
100%		100%		100%	
91% perfect		100% perfect		100%	

1220 E

Ok Ok x	Ok Ok x
Ok Ok x	Ok Ok ok.
Ok Ok x	Ok Ok x
Ok Ok x	Ok Ok x
Ok Ok x	Ok Ok x
Ok Ok x	Ok Ok ok
Ok Ok x	Ok Ok ok
Ok Ok x	Ok Ok x
Ok Ok x	Ok Ok x
Ok Ok x	Ok Ok fair ok.
Ok Ok x	Ok Ok x
Ok Ok x	Ok Ok x
100%	100%
100% perfect	66⅔% perfect

1220-E

4 Rounds

Make 4 rounds four long edged, rounds other edge side is separates because the wood due to drying

Print 20g.

1221-E

Ok Ok	X	Ok Ok	X
Ok Ok	X	Ok Ok	X
Ok Ok	X	Ok Ok	X
Ok Ok	X	Ok Ok	X
Ok Ok	X	Ok Ok	X
Ok Ok	X	Ok Ok	X
Ok Ok	X	Ok Ok	X
Ok Ok	X	Ok Ok	X
Ok Ok	X	Ok Ok	X
Ok Ok	X	Ok Ok	X
Ok Ok	X	Ok Ok	X
Ok Ok	X	Ok Ok	X
Ok Ok	X		
Ok Ok	X	Ok Ok	X
100 %		100 %	
100 % perfect.		100 %.	

1221-E

24 Blkw. of 1205-E

Varnish all over.

Print in regular Seal of Models but did not use any B. solution around the margin of these Models.

Print Reg.

1209 E Continued

1222-E

OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK	crk	OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK	crk	OK OK	crk
OK OK	X	OK OK	X
OK OK	crk	OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
OK OK	X	OK OK	X
100%		100%	
75% perfect		91%	

1222 E

2 Rounds

Reg blanks made in special mould used in ~~[illegible]~~ 1218 E but ring cut down to get thinner blank

Highest Calliper 235

215	221	214	219
215	224	217	224
211	219	222	227
211	214	215	222
215	221	219	226
215	216	218	222
215	224	211	214
224	235 —	214	228
215	224	215	230
212	213	209	213
215	219	206	216
208	216	217	224

This is OK providing we want to use this scheme

1223

Little if any deference between the 1st & 12th in 1st Round —
am getting weak lungs & try it again —

1223 E

Load #1 Two moulds are never to be cleaned or touched or ~~oil~~ solution used, only feather duster is to be used, Save the records until 24 is made as soon as 6 are made send them down — Each time —

1224 E	2nd Trial less Var but little more than Reg	
OK OK X	OK OK	OK OK X
OK OK	OK OK X	OK OK
OK OK X	OK OK X	OK OK
OK OK X	Cracked	Ckd
OK OK Low 3 ok Dont hear	OK OK X	OK OK X
Fern small in Music	OK OK	PO in Music
OK OK X	OK OK X	OK OK X
OK OK X	OK OK X	OK OK X
OK OK 2 spots may be PO	OK OK	OK OK
OK OK X	OK OK	OK OK X
OK OK X	OK OK X	PO in Music
	OK OK X	OK OK X
91%	91%	66%
58%	58	50%

Dont look as free can increased Varnish)

1224 E June 28/16

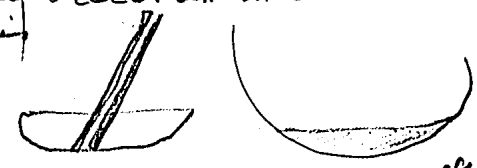
Regular records 3/16 Taper One coat varnish but put on thicker to make record more water proof It takes longer to dry on the rack than those we have been doing will get the time of drying for comparison This has a fern showing the Varnish is put on too thick Will Compromise & reduce it but use more than is regularly used on June 28/16

The water affects the surface just before red line & then generally clears, all clear when get in 1/4 to 3/8

Think we should use a shade more Varnish than now, but very little as alcohol affects the stability of the blanks, leads to weaken the edge & produces Radial Cracks & also Cracks which permits PO of Gases —

6/28-16

Soaked ~~[illegible]~~ 20 minutes Seconds in water



	OK	DISCARD.	Bad Tolerance	OK Only little
Reg	II		II	I
Very much	IIII	IIII	II	III
Medium	III	I		IIII I

Medium means one coat of Varnish is put on a little thicker than was put on regularly

Very Much Means Varnish put on quite thick so it takes some time to dry —

Reg		Medium	Very Much
	100	91	91
	85	58	58

1225 E

5 Blankets soaked 1/2 in water then dried 1 1/2 hours —

Vacuumed

Printed Reg

After baking 3 warped very bad — sent 2 to print —

The 2 print OK & round fair —

Flow too much wants 1 1/10 instead of 1 1/4 Lac.

1226 E

2nd Round	1 Round
OK OK X	OK OK X
OK OK X	OK OK
OK OK X	OK OK X
OK OK X	OK OK X
Com 1 ck	OK OK X
OK OK ven	OK OK
OK OK X	OK OK X
OK OK X	OK OK
OK OK ck V	OK OK
Cracked blank	OK OK
Com 1 clea	
11	OK OK
	OK OK
90%	100%
54%	41%

1227 Best for Water —

Mould 180 more blanks —

1226 E

Weigh 486 grams

Calliper			
	221	227	226 –
	230	233	231 –

Hoffman Make up ~~[illegible]~~ enough powder for 200 blanks 3 – 4 & 1 11/4 Lac

Make up 24 blanks &

Print Reg Hold balance

powder 1

Soaked 10 min Water 1 edge

Face	1 –	6 grains	none in music	
	2	3 "	3 in music	
	3	5 "	none in music	
	4	6 "	many in music	
	5	6 "	"	
	6	4 "	none	

Think 1227 better.

Regulars —			
1 —	8 grains	Smooth	None in music
2	none —		
3	6 – 5 in music	band	
4	6 & 6 in music	band	
5	none —		
6	none —		

Breaking 4 ft drop

1 —	20 drops
2	3
3	10
4	20
5	11
6	2
7	2
8	5
9	1
10	20

Debut happened than 20 drops

30th June —

On June 29/16 – 116 moulds discarded being all discarded on that date. Had received following number of records

223	155	88	458	83
326	202	159	488	75
261	380	151	264	136
164	448	217	136	328
237	175	170	130	318
229	325	231	214	18
231	297	272	36	462
325	278	260	227	75
67	258	227	260	138
164	48	181	272	30
219	385	370	159	19
237	318	54	68	45
125	19	110	142	2
325	261	398	61	2
174	221	462	347	average 245
155	223	49	174	
167	233	214	191	
202	12	163	176	
292	259	145	258	
380	12	373	362	
448	355	496	124	
155	175	862	188	
80	325	59	124	
50	297	59	71	
152	1247	196	46	
217	1247			

OK OK X	OK OK X	OK OK X	OK OK X
OK OK X	OK OK X	OK OK low 3	OK OK X
OK OK X	OK OK X	OK OK X	OK OK X
OK OK X	OK OK X	OK OK low 3	OK OK X
OK OK X	OK OK X	OK OK low 2	OK OK X
OK OK X	OK OK X	OK OK X	OK OK X
OK OK X	OK OK X	OK OK X	OK OK X
OK OK X	OK OK X	OK OK X	OK OK X
OK OK X	OK OK X	OK OK low 3	OK OK X
OK OK X	OK OK X	OK OK	OK OK X
OK OK X	OK OK 1 ok	OK OK low 3	OK OK X
OK OK X	OK OK X	OK OK X	OK OK X
OK OK X			
100%	100%	100%	100%
100% perfect	91% perfect.	58%	100% perfect

1227 E

July 3rd 1916

Experiment on mixing

Put in fibre & lampblack
Mix well then add
Shellac Varnish
Mix fairly well then
add Black & mix
till it appears OK
make ~~test~~ four rounds
balance
Hold the powder —
~~test~~ test for Waterproof —

10 Min soak in water — OK only in one surface of 6 did notice slight RO Effect due to water — Think this way of mixing is an improvement but not quite for needed

OK X	PO
OK	OK X
Dressed forms	OK X
OK	OK X
OK forms label	
Pull oils -	OK
OK X	OK X
OK X	Mforms from
OK X	OK X
Mforms big -	OK
OK X	OK X
Mforms	OK X
	OK X
66%	83 %
41	66 %

1228

Reg blanks -
Coat one layer Varnish
Dry 2 hours then another
Coat dry 2 hours -

Print 2 Round on
Weak moulds —

Two Coats seems
impracticable —

OK OK X	OK OK X	OK OK X	OK OK X
OK OK X	OK OK X	OK OK X	OK OK X
OK OK X	OK OK X	OK OK X	OK OK X
OK OK X	OK OK	OK OK X	OK OK X
OK OK	OK OK X	OK OK X	OK OK X
OK OK X	OK OK X	OK OK X	OK OK X
OK OK X	OK OK X	OK OK	OK OK X
OK OK X	OK OK X	OK OK	OK OK X
OK OK X	OK OK X	OK OK X	OK OK X
OK OK X	OK OK X	OK OK X	OK OK X
N Washed	OK OK X	OK OK X	OK OK X
OK OK X	OK OK Low 3	OK OK X	OK OK
OK OK X	OK OK X	OK OK X	OK OK
		OK OK	OK OK
100%	100%	100%	100%
91% Perfect	83%	83%	75

1229-E

If necessary This to OK —

Make a seg lot of powder 3 wood 4 Check $1\frac{1}{10}$ face —

Run thru 4 rounds on Special Moulds load 50

Keep balance of powder till Lacy. make up —

Drop 4 ft on blotter

1 —	5 Times	9 —	1 times —
2	2	10 —	5
3	6	11 —	2
4	1	12 —	3
5	2		
6	9		
7	7	Hawaiian auto fine accuracy	
8	1	Holes opposite side rough — note —	

July 6 1916

Re test of 1226 1227 + Reg records not edged — soaked in water ONE HOUR.

The grateing sound or run out sound on 1227 + Reg are about the same, if any change its favorable to Reg —

1226 is better than either 1227 or Reg for Run out + general surface as far as water proofing + surface its a distinct improvement

Edge are swelled very bad on Reg
" " not so much on 1227
" on 1226 are very little swelled

1226 Best

C151J

Dimwiddie Went over a Calliper and
Rag blanks —

236 —	251	15 —
236	259	23
241	263	22
240	256	16
232	245	13
240	267	27 —
243	250	7
226	253	27
229	248	19
223	251	28 —
242	255	13
244	255	11

Rollan

1230 E

One round of blanks made by Dimwiddie in new powder loading machine —

Calliper

247	260	13
241	260	19
250	265	15
242	254	12
252	260	8
236	248	12
243	251	8
237	249	12
249	264	15
244	247	3
243	247	4
263 -	273	7
245	256	
High	263	
Low	236	

Should be 240
@ 245

2nd attempt

252	257	5
245	255	10
238	255	17 —
226	247	21 — worst
252	258	6
239	246	7
248	252	9
238	249	11
239	256	14
248	266	18 —
249	254	5 —
239	259	20 —
242	High 266	
	Low 226	

Too much & too much Variation

Drop Test July 8 1916

Regulars

4 ft drop flat on Blotting Pad of my desk

# of Drops	
9	
3	
14	
10	
20	This is good
6	Enough to Cancel
10	
17	
4	as Dropping from
20	hand on Carpet
10	
20	is less severe

Will drop 6 diamonds twice a week to check

[155]

July 12 — after 33 prints —
Examined 12 records 2 months old
They are OK, for surface

11 @ 12000 Varnished 6 blanks
July 17 daily 20 girls days
4 man nights —
4/10th cent each —

After varnishing blanks
there are small holes &
pull out rough spots with
a number of holes —
by spaling each with a
very small quantity varnish
6 printed this way — 6 faces
got. 19 snaps unspalled
on another set moulds
got 45 snaps — looks as
if spalling diminished snaps

123KE
Load 50 — Keep running
night + day — test 2 rounds daily
for surface.

B
1232E

Two rounds of worse blanks than A Blanks on other page —
These are discarded with Hoffman Dept,

OK OK X	Cracked.
OK OK X	OK OK X
OK OK X	OK OK Looks like PO sound OK
OK OK X	OK OK X
OK OK Low or PO OK 1	Snaps 2
OK OK —	OK OK Low 2
OK OK X	OK OK X
OK OK X	Pouts —
OK OK X	OK OK X
OK OK X	Cracked —
OK OK Low 3	Cracked
Broken	

91%
66-% perfect

A
1232E

Ordered blanks pressed

A lot of rejected blanks (pullouts) which were made 1st half day 12th at night. The rejections were more than usual —
Took 2 Rounds where Pull Outs bad —

OK OK minimum bad Edge	OK OK —
Cracked Mine OK	OK OK X
OK OK Low -	Low 2 position Spot Discard
OK OK —	OK OK X
OK OK X	Low spot 1/8" dia 2 position Varnish spot
OK OK —	OK OK —
OK OK X	OK OK X
OK OK X	OK OK X
OK OK X	Varnish spot 2 1/4
Cracked 45	OK OK X
OK OK —	OK OK X
Pull outs. 33%	Cracked 66 — 50 %

1233-E

Load 51 has moulds with
No Mottle - They are
running them to see
if Mottles develope -
up to 50 rounds I examined
10 faces. - 7/14-/16 -

No Mottle	Very Mottle Light	only traces of Mottle
4	3	3

Surfaces on most were good -
Cant say if there wasnt some mottle
originally -
Of the original 12 - 3 were discarded
1 for Eccentric. 2 for Dents.
4 off for repairs - Dents are from
pieces of Chunk falling on moulds or
pressed in.

C(61)

1234 E

Blanks with holes in — separated by touching with a spot of [illegible] of [illegible]

Where P Out in blanks given deeper [illegible] [illegible] —

July 17/16

1235 E 2 Moulds run

Contemporaneously & not washed

Kalma Waltz

		good satisfactory Record
1st		Start not good - general surface Even & about V,
12		dito
24		dito
36		Slightly louder
48		Same
60		Same
72		Same
84		Same
96		Seems to improve
107		Same
120		Apparently just as good as when it started
132		about same I think little snap X came in
144		Same
156	Cracked	
178		Rough start, slightly snapping
190		Very " Reject."
202		

Start bad - Reject.

These were not preceded in new mould with square ring

Josephine Polk Opposite

Very good record throughout

1st Record surface start smoother than Relation

No 1 Surface V Even Start fair -

12		Surface Even not V.
24		dito
36		dito
48		dito
60		dito
72		dito
84		dito,
96		do
107		do
120		about same as when started
132		OK Snap repaired
144		OK same
156	Cracked	
178		
190		nearly OK yet has lost little snap nearly as good as start
202		getting little stammy
214		Mould - Reject

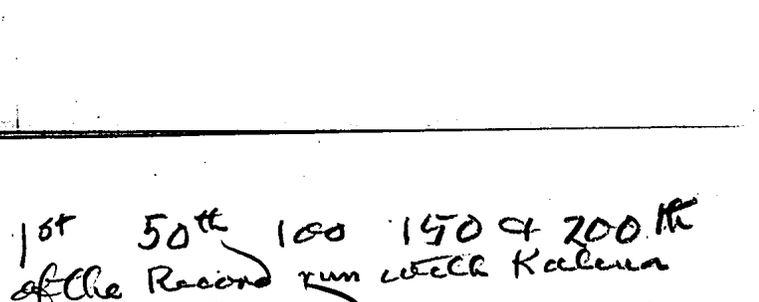
Start too loud -

OVER

These probably accounted for bad start

1st 50th 100 150 & 200th
of the Record run with Kalma
vs Ally Record —

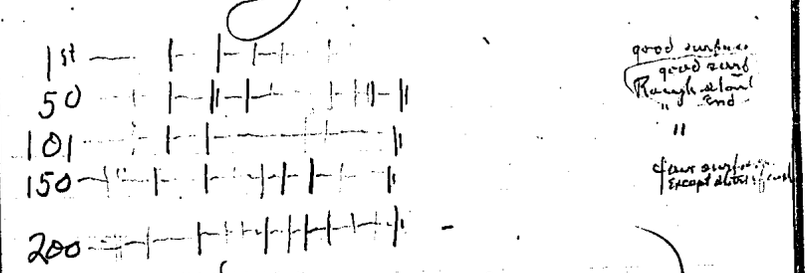
~~Commodore~~ Kalma —



Rejected

This mould had very bad start
should never have been put on

Josephine



Start bad from 1st = This mould
would not run more than
a dozen more it would be
too rough on start

1236 E

2

Moulds which have gone
50 times were Nickel
plated by Demonstrie
to be run till further
notice —

Have every 12th run

Not washed

Taken Off —
Peeled — Mi too thin —

1237E

Expects to find out what knocks mowers

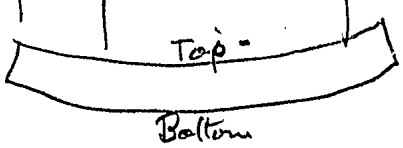
2 Discards 4524-C-E-199 Dent 57 prints
4514 C C 178 WDent 65 prints

Put 005 crushed glass — about 50 pieces scattered all over-blank — put top on, let it drop 1/4" then hold it permitted.

Blanks-

The warping is always

Thus



Always Convex on the bottom -

1/3rd are flat, why ?

sometimes 50% dead flat,

As there are pieces falling

girls.

Varnishing Dept	59
Oiling blanks	6
Printing	1
Sorting Records	5
Eye Inspectors	8
Machine Test	6
Edge Inspect	4
Mould Test	9
Numbering Sorting	11
Finish, Wash, inspect	60
P B Inspection	6
Matrons	3
Office	5
Repair Room	21
Celluloid Print room	5
" Dip	4
Clerk	1
	214

Details
Varnish Dept

20 Varnishing
20 Carrying blocks to dry rack (unnecessary)
5 filling Racks for ovens
5 taking from Racks after bake - inspection
6 Coverscreening & inspecting for scratches
3 taking Van blocks from Inspector & putting on record rack for delivery to Oiling Operation

1238E

Exports 6 lots 12 each
blank with 1916 desk on
season + every day calendar
one lot for drawing —

Daily Reports Inspection -

	Coach	Perfect	PO	Rounds	PO new ring
19th -	92%	66.9	15%	50	none 20 Rounds
20	88	63.2	17%	20	none 50 Rounds
21	93.9	66.8	14	50	75 - no PO..
22	93.3	56.6	20	40	70 - none 1 Div
24	89.57	55.3	37.5	60	102 none 2 Div
25	90.27	59.2	34.5	60	104 no PO 1 Div
26	86.8	48.7	39.1	60	105 4 PO-4 Div
27	92.6	58.62	34.3	60	127 6 PO-5 Div.
28	93.44	59.50	33.6	60	145 2 Vun Div 1 com Vun
29	94.6	56.3	26.5	55	111 - all OK
31	93.1	56.7	34.5	60	132 all OK

Blank Piecework

	10 hours
1700	25c
1750	27
1800	28
1850	29
1900	30
1950	31
2000	32
2050	33
2100	34
2150	35
2200	36
2250	37
2300	38
2350	39
2400	40
2450	41
2500	42
2550	43
2600	44
2650	45
2700	46
2750	47
2800	48

Records recd by
Baldwin

July 14	7639
15	5080
×	×
17	7006
18	4132
19	5127
20	5138
21	2797
22	5427
24	5089
26	5587
27	5898
28	5256.
29	5236
31	4481

Blanks Made

		Rec'd
July 19	15371	546
20	14745	548
24	9375	"
25	12755	
26	14550	
27	14659	
28	16473	
29	14691	

Monthly Stat

Drop test Keys

11	12-6-9-14-8-6	45
12	20-4-6-5-10-20	65
13	2-8-17-2-13-13	55
14	15-5-5-8-1-9	43
15	2-20-20-8-2-20	72
17	20-10-20-1-20-19	90
18	9-18-3-20-12-1	63
19	12-7-19-20-2-10-	70
21	20-3-1-9-13-7	53
24	8-14-20-2-5-20	69
25	20-3-12-20-4-9	68
26	10-11-9-5-7-20	62
27	20-15-8-3-20-20-	86
29	18-7-20-10-3-20-	48

* new 3/16 Paper blanks.

Average Miller & Upholsters about 7/20 Records

	OK	Perfect	
June 20	80.8	43	
21	84.8	87.5	
22	89.5	53	
23	83.7	51.4	
24	89.2	65.9	
* 26	97.8	81.81	up stairs part old Edgar
" 27	99.1	81.87	
" 28	94.9	80.40	
29	96.74	89.38	
30	97.22	89.79	
1	95.9	90.20	
none 5	96.58	83.50	
6	96.57	85.14	
7	91.3	81.36	
8	97.6	83.5	
10	95.69	84.2	
11	94.3	81.8	
12	95.	76.57	
13	92.7	79.6	
14	91.9	76.3	
15	92.97	74.2	
17	93.	73.8	
18	92.1	67.	
19	92.	66.9	

C1917

June 20
Records rec'd by
Baldwin

June 20	7651
21	5571
22	6247
23	3968
24	5230
26	7166
27	8838
28	8465
29	9638
30	10169
July 1	9285
3	9562
5	9101
av 8453	
6	9055
7	9133
8713	
8	7105 Saturday
10	9031
11	6066
12	7149
13	6189

Blanks made

		Sets Run
20th	11470	471
21	13320	471
22	12304	471
23	9489	471
24	8859	465
26	13658	465
27	7260	465
28	13033	
29	7826	
30	8574	
July 1	6871	
" 3	9455	
5	10340	
6	11349	
7	11919	
8	8492	
10	11182	451 Run
11	11862	483 "
12	10828	~~501~~
13	11089	501
14	14493 Piecework	510
15	13439	"
17	14090	529
18	15406	533

Newring Moulds
Sent up by Rzios

21st	31	Complete Moulds
22	21	"

Point for Inspector

Hoffmann - Platters,
" Scored rings
" Dirty Ledges,
" Steel, in blanks,

Rusche -
Slobbering oil on Edges
Scored Edges + polishing
Drill Diamonds too many
Edging Discards,
Seed Moulds are in rotation
before a while Edges are oiled

June 24 1916

Shellac stock 65 000
in NY warehouse 233 000
on Contract Aug Sept Oct 275 000
Jany Febry 100 000

C105

[ITEM(S) FOUND IN BOOK]

1143 E

Reexamined 1100 27/16

1 good elite RO
2 fair to good

3 fair — elite RO
4 Round — old poor mounted

5 fair — RO
6 fair RO } old mounted

Two Uncle Van & Uncle